

Work Order ID 129002

Tuesday, January 27, 2015 11:41:56 AM

129002

Page 1

Item ID: D2322 Accept *N900040100* Setup Start *NS1*

Revision ID: Stop *NS2*

Item Name: Step Spacer

Start Date: 1/28/15 Start Qty: 6.00 *6* Cust Item ID:

Required Date: 2/06/15 Req'd Qty: 6.00 *6* Customer:

Reference:

Approvals: Process Plan: MLJ Date: 15-01-30 Tooling: _____ Date: _____ Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2322	Rev C								

100 FLOW WATER JET 0.00 (7) DC 15/02/09

100

Waterjet Memo 0.00

FLOW CNC Waterjet 1-Cut as per Dwg D2322 Dwg Rev: C Prog Rev: C 2-
Debur if necessary

2024.040

110 QC2- Inspect parts off machine FAI/FAIB 0.00 (7) DC 15/02/09

110

QC Memo 0.00

Quality Control

120 QC8- Inspect parts - second check 0.00 (7)

120

QC Memo 0.00

Quality Control

UAS
38
9-89
FEB 09 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Work Order ID 129002

Tuesday, January 27, 2015 11:41:56 AM

129002

Page 2

Item ID: D2322

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Step Spacer

Start Date: 1/28/15

Start Qty: 6.00

6

Cust Item ID:

Required Date: 2/06/15

Req'd Qty: 6.00

6

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

130

130

Brake NC

NC BRAKE

0.00

DAS
30
9-89

7

15/01/15

Brake NC

Memo

0.00

Form as per Dwg D2322

140

140

QC

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

Quality Control

2

DAS
38
89

FEB 11 2015

150

150

HandFinish

Chemical Conversion Coat per QSI005 4.1

0.00

Memo

0.00

Hand Finishing

15-2-00

J/Dec

DQA: _____ Date: _____



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Design									
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Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
		☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge
		☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other

Work Order ID 129002

Tuesday, January 27, 2015 11:41:56 AM

129002

Page 3

Item ID: D2322

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Step Spacer

Start Date: 1/28/15 Start Qty: 6.00 *6*

Cust Item ID:

Required Date: 2/06/15 Req'd Qty: 6.00 *6*

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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160

QC7-Inspect Chemical Conversion Coat

0.00

160

QC

Memo

0.00

Quality Control

7 DAS
28
9-89 23/02/2015
38
9-89

170

Identify as per dwg & Stock Location: GA

0.00

170

Packaging

Memo

0.00

Packaging

7 DAS
65
9-89 FEB 26 2015

180

QC21- Final Inspection - Work Order Release

0.00

180

QC

Memo

0.00

Quality Control

MCS 1502-26

MF
15-2-26

DQA: _____ Date: _____



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FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Picklist Print

Tuesday, January 27, 2015 11:42:00 AM

Page 1

Work Order ID: 129002

129002

Parent Item: D2322

D2322

Parent Item Name: Step Spacer

Start Date: 1/28/15

Required Date: 2/06/15

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP Rev:A New Issue 05-11-07 JLM
IPP Rev;B Now on Waterjet 06-07-03 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M2024T3S.040		Purchased		No		100	sf	124.0000	0.203	2			

M2024T3S 040

2024-T3 .040 sheet

**

DC15/02/09

Location

Loc Qty

Loc Code

MAT022

124

m130497

124

1.8333

DQA: _____ Date: _____

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		☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other



DESIGN		DRAWN BY		DART AEROSPACE LTD HAMKESBURY, ONTARIO, CANADA	
BW		CP		REV. C	
CHECKED	APPROVED	DRAWING NO.		SHEET 1 OF 1	
KE	W	D2322		SCALE	
DATE		TITLE		1:2	
98.09.29		STEP SPACER			
A	94.10.14	NEW ISSUE			
C	98.09.29	4.428 WAS 4.460, 0.040 WAS 0.032 CHANGES PER NCR 001			

RELEASED
18.10.08 DS

UNDER REVIEW

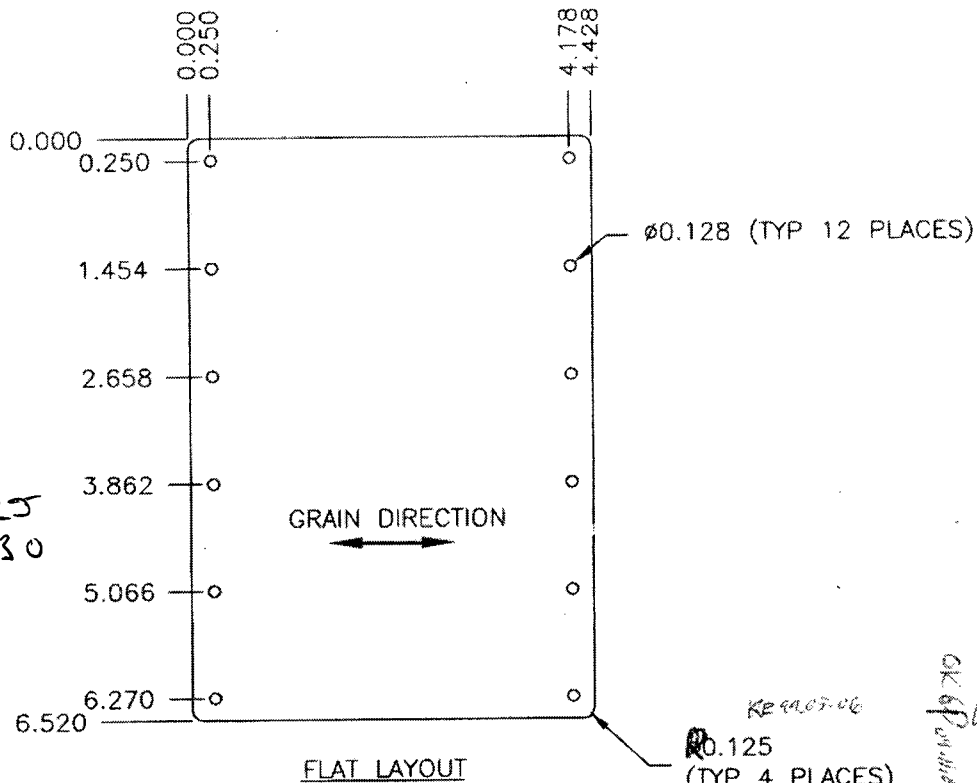
01.03.15 CP

DESIGN OK, BUT CHECK WITH
DTS BEFORE MANUFACTURE

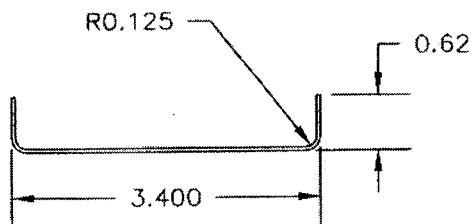
OK 6P 01/03/15

KE 01.03.15

R0.125
(TYP 4 PLACES)



ML 129002
MLJ
1501-30



MATERIAL: 2024-T3 (QQ-A-250/5) 0.040 THICK
FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1
TOLERANCES PER DART QSI 018 UNLESS OTHERWISE NOTED